
Assessing the Benefits of the Transfer Credit System in British Columbia:

A Feasibility Study

*A Report Prepared for the B.C. Council on
Admissions and Transfer*

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BRITISH COLUMBIA COUNCIL ON
ADMISSIONS & TRANSFER

SUPPORTING BC'S
EDUCATION SYSTEM

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Prepared by:

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EXECUTIVE SUMMARY

Introduction

The B.C. Council on Admissions and Transfer (BCCAT) is considering whether to commission a full study of the benefits of British Columbia's articulated post-secondary system. The purpose of this report is to provide information and recommendations on the issues, costs, and advantages that would be associated with such a benefits study. Earlier, BCCAT commissioned a study of the costs of the course and program articulation process between colleges, institutes, university colleges, and universities.

British Columbia's post-secondary education system has been built around policies and procedures that facilitate transfer of academic course credits from two-year community colleges to universities. The course-based transfer system that evolved in the late 1960s continues to be the main vehicle for college-university transfer. It is probable that the transfer system will continue to be a central component of B.C.'s post-secondary education into the foreseeable future

Benefits

Generally, economic benefits are increases in output or consumption that stem from some action or decision. A study of the benefits of the transfer system would include the direct effects of the transfer system on individuals, the post-secondary system and its institutions, and society at large.

There are three direct benefits to individuals that might be associated with an effective transfer system:

- Local access to academic programs, resulting in lower costs to students
- Easier exploration of career options
- Easier high school to post secondary transition

Five benefits might be conferred on the post-secondary system and its institutions by the transfer system:

- Providing 1st and 2nd year courses at colleges at a possible lower cost than at universities
- Screening of lower achieving students
- Providing a transfer guarantee for college courses
- Encouraging collegial relationships between college and university faculty
- Facilitating a comprehensive mandate for colleges

Individual and system and institution benefits all lead to benefits to society because they are part of a process that nourishes the important social and economic advantages of a more highly educated population and labour force. The contribution of the transfer system is that students who would not have been eligible to attend university directly from high school can have access to a degree program through the transfer system.

A benefits study would have to deal with two important methodological issues. It would have to separate the transfer component of the post-secondary system from all other system features (e.g., institution mandates, admission practices, high school graduation) that contribute to the system's character and performance. Also, it would be necessary to select an alternative system so that outcomes with the transfer system could be compared to outcomes without it.

Scope of a Benefits Study

BCCAT will have an important decision to make concerning the scope of the study. A study that simply expanded on the benefits identified in the present report using a subjective, anecdotal approach would be inexpensive, but probably not very useful. Alternatively, a study that aimed to quantify many of the benefits of the transfer system would be much more costly but would have more value and would have the added advantage of encouraging the development of better statistical information on post-secondary system outcomes. This report presents the pros and cons for each of four increasingly complex approaches to assessing transfer system benefits. The qualifications of possible contractors to do the study at various levels of complexity are discussed. Possible terms of reference for the study are discussed under three headings: objectives of the study, research design issues, and conduct of the study.

Conclusion

A benefits study would confirm that the transfer system does have real and measurable benefits and would also lend support to efforts to collect better information concerning students' paths through the post-secondary system. Another use of a benefits study would be to provide a framework for assessing the value of making improvements in the existing system. But a benefits study would have costs: the direct costs of the study itself and the indirect costs for BCCAT and institutions whose staff would necessarily be involved in the project. Weighing these costs against advantages of having a benefits study, the report concludes that BCCAT should undertake a benefits study.

Of the four study approaches discussed in the report, an approach with moderate complexity and comprehensiveness should offer a positive return on the costs of carrying out the study. Exactly which one should be chosen will depend on BCCAT's budget for a benefits study and how soon it would like the study completed.

1. INTRODUCTION

Background

The B.C. Council on Admissions and Transfer (BCCAT) is considering whether to commission a full study of the benefits of British Columbia's articulated post-secondary system. The primary tool for articulating the post-secondary education system in British Columbia is the transfer credit system, especially that part of it that facilitates the transfer of course credit from community colleges to universities and other degree-granting institutions. The purpose of this report is to provide information and recommendations on the issues, costs, and advantages that would be associated with such a benefits study.

In 2003 BCCAT commissioned a study of the costs of the course and program articulation process between colleges, institutes, university colleges, and universities (Jarvis, 2004). The Articulation Costing, Phase II report estimated the annual (2002/2003) costs of the articulation system to be \$6.1 million. The report's recommendations (page 20) included the following statement concerning a possible benefits study.

“...any judgment about the appropriate level of expenditure should be deferred until the associated benefits have been quantified more rigorously than has been attempted in this report. For this reason it is recommended that BCCAT commission an economic study of the benefits of a system of articulation.”

Like other agencies funded by the Provincial Government, BCCAT is expected to “... provide evidence that the Transfer System ... has been effective and ... accountable for the public funding that supports that system.” (BCCAT, 2005). BCCAT's accountability report, prepared for the Ministry of Advanced Education, reviews the extensive transfer-related research on the performance of the post-secondary system, identifies efforts to improve articulation and transfer, and discusses future research plans. A study of the benefits of the transfer system is identified as a proposed project.

The B.C. Articulation and Transfer System

British Columbia's post-secondary education system has been built around policies and procedures that facilitate transfer of academic course credits from two-year community colleges to universities since the late 1960s. The central blueprint for the system, Higher Education in British Columbia and a Plan for the Future, known widely as the Macdonald Report (Macdonald, 1962), called for a system of seven two-year colleges to be established across the province by 1971 offering academic courses designed for university transfer, “technological and semi-professional courses”, and adult education programs of various types (Macdonald, 1962, p. 51). These colleges were not envisaged as copies of the University of British Columbia but were to create “parallel” but not “identical” courses that could be transferred to degree-granting institutions.

This plan¹ was substantially implemented in the 1960s and then expanded with more colleges in the 1970s and with several new degree-granting institutions since 1990. The course-based transfer system that evolved in the late 1960s continues to be the main vehicle for college-university transfer today although the creation of Associate degrees in the colleges in the 1990s and the expansion of degree opportunities have introduced some changes.

¹ For fuller accounts of the province's post-secondary system planning, see Dennison, 2002 and Gaber, 2003.

At present the system consists of 24 “sending” institutions, 16 “receiving” institutions and five institutions that both send and receive. Together they provide members for some 70 discipline- and program-based Articulation Committees. As of 2005, these Committees are associated with 57,520 course transfer agreements covering 7,921 sending institution courses (BCCAT, 2005). In 2002/03, around 4,500 new student registrants transferred from colleges and university colleges to universities (Heslop and Gaber, 2004).

One of the current objectives of the Ministry of Advanced Education is “a more efficient and integrated post-secondary system” and one of the performance measures for this objective is student satisfaction with their transfer experience. (Ministry of Advanced Education, 2005) Other Ministry objectives and their associated performance measures are also related to the articulated post-secondary education system with its associated transfer system. Although the number of students transferring has remained more or less static in the last few years, it is probable that the transfer system will continue to be a central component of B.C.’s post-secondary education into the foreseeable future. The expansion and diversification of institutional mandates will likely continue result in more multi-directional transfer to augment the uni-directional college-to-university transfer that has so far dominated the transfer system.

2. NATURE OF SYSTEM BENEFITS

What Are Benefits?

The term “benefit” is often associated with cost-benefit analysis.² This technique compares the costs and benefits of some decision, usually a government decision, over time, and determines whether or not the decision is efficient in terms of increasing output in the economy. Although most often applied to discrete project-type decisions, such as whether or not to build a new crossing of Burrard Inlet, cost-benefit analysis is also used for various types of program and policy decisions such as setting of highway speed limits or mandating motor vehicle safety devices. Assessing the B.C. transfer system using benefit measurement techniques derived from cost-benefit analysis falls within the scope of this technique although it is worth noting that government decisions with diffuse effects present greater measurement problems than those whose effects are focused.

Economic benefits are increases in output or consumption that stem from the decision in question. The value of these increases is what the recipients would be willing to pay for them. In practice, benefit measurement approaches the tasks of identifying and measuring benefits from the bottom up (studying the direct effects of the decision) rather than from the top down (observing or predicting changes in aggregate consumption or output). Thus, in thinking about the benefits of the transfer system, it is not necessary to construct a model of the British Columbia economy that is built around the characteristics of the post-secondary education system. Instead, we can concentrate on what we believe to be the direct effects of the transfer system.

Benefits to Individuals

There are three direct benefits to individuals that might be associated with an effective transfer system. These are all connected to the perceived superiority of community colleges for post-secondary education for some types of students. These advantages are made more accessible with an articulated system that facilitates subsequent transfer of student course credit to universities.

² For a general introduction to cost-benefit analysis, see Brent (1996).

- i. Local access to academic programs. Because a transfer system provides credit for completed academic courses, students are more able to attend nearby post-secondary educational institutions for their first two years of post-secondary education. This lowers their overall cost of education because college tuition fees are lower and because they may be able to live at home. According to Frenette (2004), transfer systems increase participation rates.
- ii. Easier exploration of career options. Community colleges, with their mix of academic and technical programs, aid students who are uncertain about their future career directions because they can explore various types of educational programs within the same institution. Universities only offer academic programs and so can do little to facilitate this type of exploration.
- iii. Easier high school to post secondary transition. Community colleges offer smaller classes and a less challenging learning environment than are found in universities. For some students, this gentler transition to higher education improves participation and enhances learning. In an environment where demand for university places has for many years exceeded the supply of places³, this benefit is expanded by giving students who did not meet university entrance standards after Grade 12 a second chance for university admission.

Benefits to Institutions and the Post-Secondary System

The transfer system may confer five benefits on the post-secondary system and its institutions.

- i. Colleges may provide 1st and 2nd year courses at a lower cost than universities. Whether this actually happens will depend on whether the lower salary levels and higher annual teaching loads of college faculty offset the larger class sizes of universities and broader work responsibilities of university faculty. If this calculation does lead to a lower cost per student in colleges, then there is a benefit in directing some 1st and 2nd year students away from universities, as long as their educational needs are met by a college environment.
- ii. Screening of lower achieving students. Colleges may perform a screening function with respect to lower achieving post-secondary students that is valuable to universities since it reduces the range of abilities that must be accommodated in lower level courses. This should improve the learning experience for more motivated and talented students and lead to lower attrition for all types of students. From the perspective of the universities, rationing a limited number of entry places according to prior high school academic achievement is preferred over other rationing models.
- iii. Providing a transfer guarantee for college courses. With the transfer system and its system of discipline-based articulation committees, colleges obtain automatic validation of the suitability of their academic courses for university transfer. Universities are satisfied with the transfer system because college transfer students perform at a similar level to direct entry university students by the time they reach the end of their undergraduate degree programs. (Heslop, 2004)
- iv. Encouraging collegial relationships between college and university faculty. Both the administrative structure of the transfer system and the fact of transfer lead to greater collegiality between college and university faculty than would otherwise occur. This helps to create a shared vision for undergraduate education in B.C.

³ Soles (2001) discusses a variety of impacts of university capacity shortfalls.

- v. Facilitating a comprehensive mandate for colleges. B.C. community colleges are able to provide both academic and technical courses and so serve their localities better than if there was no comprehensive transfer system. More broadly, the transfer system allows the Provincial Government to operate a diverse, yet integrated system of post-secondary education. At its best, this system provides seamless transfer between academic programs in different institutions.

Benefits to Society

Individual and system/institution benefits all lead to benefits to society because they are part of a process that nourishes the important social and economic advantages of a more highly educated population and labour force. Policies and programs that stimulate participation in post-secondary learning and encourage retention and completion are socially beneficial.

The specific contribution of the transfer system is that students who would not have been eligible to attend university directly from high school can have access to a degree program through the transfer system and then are, five years after graduation, indistinguishable from direct entry students. A BCCAT 2003 study (Dumaresq, Lambert-Maberly, and Sudmant, 2003) summarized its findings as follows:

The most important finding from this study is that on the most important outcomes (satisfaction with university experience, continuation of studies, low unemployment rates, salaries and social engagement), there were no major differences between direct entrants and college transfers. This study provides concrete evidence for the success of the college transfer system as a viable route to baccalaureate degree completion.

Further support for this positive view of the transfer system's social effects is given in Heslop (2004).

3. MEASURING BENEFITS

Research Literature

A cursory survey of research literature on transfer systems reveals very few examples of direct measurement of the benefits of articulated post-secondary systems. There is very little Canadian research and much of that has been commissioned by BCCAT. U.S. studies are not as relevant because the diversity⁴ of degree-granting institutions there is not replicated in Canada. This diversity means that there is less need in the U.S. for ensuring that there are simple and reliable options for community college students who wish to transfer academic credits into degree-granting institutions since universities of various types are widely available.⁵ Perhaps as a result, much research effort has been directed at the effects that community colleges have on directing and motivating students whose long term educational goals include seeking a degree. Most of this research supports the view that two-year colleges increase overall educational attainment (Rouse, 1998) and that the "democratization" effect (improved access) outweighs the "diversion" effect (otherwise degree-bound students diverted to two-year credentials). (Leigh and Gill, 2003 and 2004)

⁴ Winston (2004) explores whether there is too much or too little diversity in the U.S. college and university system and concludes that the access that individual students have to the institution that best suits them is critical in making this determination.

⁵ Nonetheless, many U.S. states have created quite formal transfer linkages within their public post-secondary systems (Ignash and Townshend, 2000).

These findings lead into the large research literature on the economic benefits of university education. Riddell (2004) reports Canadian research that concludes that a bachelor's degree increases the private educational return over high school by 23-25 percent and over college only education by 16-19 percent. Allen (2004) finds that the social return to bachelor-level university education in Canada varies by program but for most graduates is around 18 percent annually. As he puts it, "... the emerging knowledge-based economy requires university graduates in all fields." (Allen, 2004, p.77)

Isolating Transfer System Effects

A study of the benefits of B.C.'s articulated post-secondary system would have to resolve the issue of separating the transfer component of the system from all other system features (e.g., institution mandates, admission practices, high school graduation) that contribute to the system's character and performance. If the transfer system cannot be isolated in a way that is conceptually sound and practically useful, then the study would become a study of the overall benefits of post-secondary education in B.C. Such a study would be interesting but it would include many economic and social effects of post-secondary education that lie well outside the interests of the B.C. Council on Admissions and Transfer. Thus, any study of the transfer system would have to be constrained to address only educational outcomes that are directly the result of transfer, *per se*. Other system characteristics (such as the value of community colleges in non-metropolitan British Columbia) would have to be excluded in the terms of reference for the study.

Comparison Options

In order to measure the benefits of the transfer system, outcomes with it should be compared to outcomes without it. This requires the selection of an alternative system that would have existed if the current B.C. system did not exist. It should be noted that although a choice of this type would be essential for measurement of system benefits, the nature of the benefits of an articulated post-secondary system could be reviewed without choosing an alternative model.

We can identify five other systems that could be possible replacements for the current largely course-based B.C. system.

- i. All transfer is one-off. Students present transfer credit requests on an individual basis and they are assessed one by one. It seems likely that in time this would evolve into some variant of the present system as universities attempted to mitigate the costs of many repeated requests for the same transfer credit.
- ii. All colleges grant degrees in a wide range of fields. The transfer system becomes much less necessary if all post-secondary institutions have general degree-granting powers.
- iii. Universities accommodate all degree-seeking students; colleges have a narrower mandate. Students who wish study towards a degree apply for university admission; those who do not apply for college admission. Students who change their goals must repeat courses – this could involve repeated study of the same material. This is similar to the Ontario post-secondary education model.
- iv. Block transfer. All transfer is based on credit hours accumulated, not on courses taken. This alternative, which is in some ways simpler than B.C.'s system, requires a high level of program

articulation and standardization. In places that have chosen this approach, much effort has gone into developing and implementing a standard two-year undergraduate curriculum.

- v. No transfer. Students can never obtain university credit for college courses. Very few public university systems in North America operate in this way today although more did in the past. The advantage of the “no transfer” alternative for measuring transfer system benefits is that all benefits of making university degrees available to college students could be ascribed to the transfer system.

Benefits and Data Sources

Table 1 includes the various types of benefits discussed in section 2. of this report and provides information on measurement issues and data sources. Measurement of many of the benefits shown in the table would be easier if there was a database that followed individual students through the post-secondary system after Grade 12. Unfortunately, such a database does not yet exist although the Student Transitions Project⁶ should make system-wide analysis of student mobility possible. To date, all published data is aggregate flow data and only a few special studies have undertaken the painstaking research needed to identify and follow individual students. Plans to give all B.C. post-secondary students, registrants and applicants, a Personal Education Number (PEN) are fairly well advanced (Link, 2004) and this would fill the statistical gap but universal PENs may be a year or two away.

TABLE 1

TYPE OF BENEFIT	LIKELY IMPORTANCE	SUGGESTED MEASUREMENT APPROACH	POSSIBLE DATA SOURCES ⁷
Local access	Major	Participation rates by locality	2001 Census – may require special run
Exploration of options	Minor	Frequency of mixed academic/technical program choice	Sample of college registration statistics
Easier transition	Major	Comparison of drop-out rates for new high school admits in colleges and universities in B.C.	Special study using university and college retention data
Lower teaching cost	Minor	Analysis of teaching cost models	Develop pro forma model based on system averages for cost and workload.
Student screening	Major	Comparisons of academic preparation of college and university students	Special study accessing university and college admission data
Course transfer experience	Minor	Incidence of articulation failures	BCCAT information
Faculty collegiality	Minor	Stated perceptions of faculty	Interviews with a sample of articulation committee members
Comprehensive colleges	Major	Advantages/disadvantages of broad mandates for colleges	Review of community college literature
Higher participation	Major	University degrees/capita in BC compared to Ontario	Statistics Canada Centre for Education
Higher retention	Major	University drop-out rates in BC compared to Ontario	Statistics Canada Centre for Education

⁶ This project is based on a data-sharing agreement between the Ministries of Advanced Education and Education.

⁷ This list is meant to be illustrative rather than exhaustive.

4. IS A BENEFITS STUDY WARRANTED?

If gathering and assessing information about the benefits of the transfer system were costless, then the decision of whether to proceed with a benefits study would be simple. However, a full benefits study would have costs. These would be of two types: the direct costs of the study itself and the indirect costs for BCCAT and institutions whose staff would necessarily be involved in the project. The possible positive outcomes of a full benefit study include the following.

- i. Identifying gains from system improvement would provide a rationale for spending to improve course articulation processes.
- ii. Properly publicized, a full benefits study might raise the profile of the transfer system among high school counselors and so improve their advice to students.
- iii. Co-operation between colleges and universities would be enhanced by participation in the study process and the expected positive results of the benefits study.
- iv. The study could be important in shaping government policy concerning funding for transfer system co-ordination and promotion.
- v. The study would assist in promoting colleges to students and communities.

On the negative side, some believe the articulation system has been studied more than is warranted. This would be an argument that the returns from further study would be less than the costs of the study. Another type of argument against a benefits study of the transfer system is that there should be a study of the effects of the whole college system so as to capture more college system benefits than just those connected to the transfer system.

In my opinion, the balance of these arguments is in favour of undertaking a study of the benefits of the transfer system. However, BCCAT will have an important decision to make concerning the scope of the study. A study that simply expanded on the benefits identified in this report using a subjective, anecdotal approach would be inexpensive, but probably not very useful. A study that aimed to quantify many of the benefits of the transfer system would be much more costly but would have more value and would have the added advantage of leading, or at least encouraging, the development of better statistical information on post-secondary system outcomes.

5. SCOPE AND COST OF A BENEFITS STUDY

There are four possible approaches to a study of the benefits of the transfer system. They are listed in terms of increasing scope and more explicit measurement.

- A. Discussion only. The nature of transfer system benefits would be evaluated with support from anecdotal information and data from existing BCCAT and Outcomes Project research. The advantage of A. is that it would cost less and could be done quickly. Its disadvantage is that any quantitative conclusions would either be based on opinion or already known, at least in some form. (Estimated cost - \$15,000)

- B. Quantitative simple. This would build on A. by adding quantitative analysis that utilized existing data sources such as the Outcomes Survey⁸, the 2001 Census, usable institutional records and data from the Student Transitions Project. In this approach, the benefits of the transfer system would be aggregated into overall benefits of a university degree. The advantage of B. is that it would create new knowledge about the effects of the transfer system using existing data systems. A possible disadvantage is that B. could cost more than estimated if the various data sources were not compatible. (Estimated cost - \$25,000)
- C. Quantitative complex (partial). This would build on B. by adding a new study of one or two of the major transfer system benefits suggested in Table 1. The most promising transfer system benefit for new research is the benefit of easier transition. A comparative study of college and university drop out experience should include several years' experience and be structured to include explicitly the impact of the transfer system. Approach C. could break new ground by creating new statistical information about one or more important features of BC's post-secondary system. The disadvantage of C. is that this benefit would be far more valuable if this information was available on an ongoing basis. Doing this, though, would increase the costs of this approach. (Estimated cost - \$40,000)
- D. Quantitative complex (complete). Approach D. would extend C. by including most or all of the ten benefits listed in Table 1. Reasonably, this might involve attempting measurement of 6 or 7 of these benefits. Gathering data from several different sources would be complex and time-consuming. Various methodological and measurement issues would need to be resolved and carrying out D. in stages might be advisable. Although difficult and expensive, D. would provide quantitative insight into many perceived benefits of the transfer system. The advantage of D. is that it would create the most new knowledge about the transfer system and the most compelling benefits case for it. The disadvantage of D. is that its cost could be much greater than estimated and its time to completion longer. (Estimated cost - \$75,000)

6. DRAFT TERMS OF REFERENCE

The terms of reference for a benefits study will depend on the approach selected by BCCAT. These draft terms of reference have been written for Approach C. They presume that BCCAT would issue a call for proposals if it decided to proceed with a benefits study.

Objectives of the Study

A substantial body of research literature confirms the social and private benefits of a university degree. Less is known about the factors that influence students' decisions to pursue a degree, this knowledge gap is more important in post-secondary systems that use articulation between various types of institutions. This project will measure some of the benefits of the transfer system currently in place in British Columbia's system of post-secondary education. Its purpose is to improve the

⁸ Further analysis of the Outcomes Survey could yield insights into the relationship between transfer system experience and graduate outcomes. In 2004 four questions were asked about the transfer system experience (BC Stats, 2005). The responses from these questions could be cross-tabulated with questions that deal with the learning experience quality and labour market experience. This analysis would not require the creation of a hypothetical "different" transfer world because it would rely on the fact that some students already experience a different transfer world (a more difficult transfer experience) than others.

ability of BCCAT to promote and defend the transfer system and to assess the value of improvements to the transfer credit system. The study will also improve the scope and quality of data about the ways in which students move through this articulated post-secondary system.

Research Design Issues

The contractor will be expected to propose a research design in her/his proposal that addresses the following issues in research design.

- i. Isolating transfer system effects from other characteristics of the post-secondary system. This separation must take account of the changing character of the system.
- ii. Selecting an alternative to the present system against which the net effects of the present system can be assessed.
- iii. Making maximum use of existing data sources and pertinent prior research.
- iv. Designing a cost-effective approach to explore the possible effects of the transfer system's easier transition in reducing drop out.

Conduct of the Study

- i. The contractor will meet regularly with a small advisory committee appointed by BCCAT.
- ii. The contractor will be expected to consult with knowledgeable institutional and government officials in carrying out the study.
- iii. An interim report will be due six months after the contract for the study is signed. During this period, the contractor will make progress reports to the advisory committee at two-month intervals.
- iv. After receiving feedback from BCCAT on the interim report, the contractor will proceed to prepare a draft final report. This will be due two months after BCCAT provides this feedback.

7. QUALIFICATIONS OF THE BENEFITS STUDY CONTRACTOR

Approaches A. and B. should be within the capability of a single research consultant or a small group of researchers. Approach C. could be carried out by a small research group while D. would need the resources of a larger consulting organization. All of the costs assume familiarity with the B.C. post-secondary system. If this knowledge had to be acquired by the consultant as part of the project, then an increase in costs could be expected.

8. CONCLUSIONS AND RECOMMENDATIONS

The terms of reference for this report include advising BCCAT on whether to proceed with a benefits study. The net benefits of the current B.C. transfer system seem to be assumed by those who are knowledgeable concerning its operation and impact and there is apparently no challenge to its existence nor, probably, to its continued improvement. Because the estimated annual costs of the system are so small (\$6 million) in relation to its central role in the \$3 billion B.C. post-secondary system it is hard to disagree with that perception.

However, the system is larger and more complex than when that estimate was made. Some public institutions are undergoing major changes in mandate while others are developing new degrees. Also, private institutions are now accessing the transfer system. All this activity leads to more opportunities for students but also to more articulation activity as new routes to credential completion are facilitated. Inevitably, this leads to the question of whether the benefits accruing to students, institutions and the system are worth the costs involved in maintaining an ever-growing transfer system. The impact of the transfer system is expected to be an ongoing interest of government and BCCAT.

A benefits study would confirm that the transfer system does have real and measurable benefits. It would also lead to support for efforts to collect better information concerning students' paths through the post-secondary system. For example, many students who start academic programs in the colleges never transfer; being able to state the broader impacts of this outcome in terms of the value of lost benefits might encourage measures to improve retention. Another outcome of a benefits study would be to provide a framework for assessing the value of making improvements in the existing system.⁹

The recommendation of this report is that BCCAT proceed with a benefits study. In terms of the four alternative approaches discussed above, Approach A. by itself would not add much new knowledge about transfer system effects although it would organize existing knowledge to greater effect. Approach D. would take more time and could involve spending considerable effort on benefits that are unlikely to be quantitatively important. The middle Approaches, B. and C., would likely offer a positive return on the costs of carrying out a benefit study. Which one should be chosen will depend on BCCAT's budget for a benefits study and how soon it would like the study completed.

⁹ These improvements could include the following:

- i. Expanding the system of course-based articulation managed by BCCAT to include university and university-college/university and university-college; college/college; and university/college transfer. In effect, this would mean modifying or abandoning the current "sending" and "receiving" institutional categories.
- ii. Including more BCIT and college technical programs in the transfer system.
- iii. Devising changes that would increase the percentage of college academic program students who transfer.
- iv. Increasing the use of block transfer.

LIST OF PERSONS CONSULTED

The author would like to thank the following persons who were consulted during the preparation of this report. Thanks are also due to several other persons who provided comments on earlier drafts. None of these persons are responsible for the content or conclusions in this final report.

Bob Cowin, Director of Institutional Research, Douglas College

Finola Finlay, Associate Director, BCCAT

Frank Gelin, Executive Director and Council Co-Chair, BCCAT

Martin Gerson, Dean of Instruction, Langara College

Jeremy Jarvis, Consultant

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REFERENCES

- Allen, Robert C., 2004. "Education and Technological Revolutions: The Role of the Social Sciences and the Humanities in the Knowledge-Based Economy," Chapter 2 in Jane Gaskell and Kjell Rubenson, eds., Educational Outcomes for the Canadian Workplace: New Frameworks for Policy and Research, Toronto, University of Toronto Press, pp. 56-85.
- B.C. Council on Admissions and Transfer, 2005. Accountability of the BC Transfer System. Vancouver, B.C. Council on Admissions and Transfer.
- BC Stats, 2005. 2004 Key Student Outcomes Indicators for BC Colleges and Institutes. Victoria, BC Stats.
- Brent, Robert J. 1996. Applied Benefit Cost Analysis. Cheltenham, Edward Elgar.
- Dennison, John D., 2002. Significant Factors in the Development of Transfer and Articulation Policies Among Post-Secondary Institutions in British Columbia. Vancouver, B.C. Council on Admissions and Transfer.
- Dumaresq, Cheryl, Ashley Lambert-Maberly, and Walter Sudmant, 2003. The Class of 1996 Five Years after Graduation: Comparing BC University Outcomes for Direct Entry and Transfer Students. Vancouver, B.C. Council on Admissions and Transfer.
- Frenette, Marc, 2004. "Access to College and University: Does Distance Matter?", Canadian Public Policy, 30, pp. 427-443.
- Gaber, Devron, 2003. Provincial Coordination and Inter-Institutional Collaboration in British Columbia's College, University College and Institute System. Ottawa, Association of Canadian Community Colleges.
- Heslop, Joanne, 2004. Alternate Paths to SFU: A Comparative Academic Performance Study of B.C. College Transfer Students and B.C. Direct Entry Secondary Students Admitted to SFU from 1992 to 1999. Vancouver, B.C. Council on Admissions and Transfer.
- Heslop, Joanne and Devron Gaber, 2004. Analysis of Applications, Admissions, and Registrations of Applicants to B.C. Universities and University Colleges from Secondary Schools, Colleges, and University Colleges in B.C./, 2002/03. Vancouver, B.C. Council on Admissions and Transfer.
- Ignash, Jan M. and Barbara K. Townshend, 2000. "Evaluating State-Level Articulation Agreements According to Good Practice," Community College Review, 28, pp. 1-22.
- Jarvis, J. and Associates, 2004. Articulation Costing: Phase II. Vancouver, B.C. Council on Admissions and Transfer.
- Leigh, D.E. and A.M. Gill, 2003. "Do Community Colleges Really Divert Students from Earning Bachelor's Degrees," Economics of Education Review, 22, pp. 23-30.

- Leigh, Duane E. and Andrew M. Gill, 2004. "The Effect of Community Colleges on Changing Students' Educational Aspirations," Economics of Education Review, 23, pp. 95-102.
- Link, Greg, 2004. The BC Provincial Education Number (PEN): Considerations for Assigning the PEN to Post-Secondary Applicants. Vancouver, B.C. Council on Admissions and Transfer.
- Macdonald, John B., 1962. Higher Education in British Columbia and a Plan for the Future. Vancouver, University of British Columbia.
- Ministry of Advanced Education, 2005. Service Plan, 2005-2006. Victoria, Ministry of Advanced Education.
- Riddell, W. Craig, 2004. "Education, Skills, and Labour Market Outcomes: Exploring the Linkages in Canada," Chapter 1 in Jane Gaskell and Kjell Rubenson, eds., Educational Outcomes for the Canadian Workplace: New Frameworks for Policy and Research, Toronto, University of Toronto Press, pp. 21-55.
- Rouse, Cecelia Elena, 1998. "Do Two-Year Colleges Increase Overall Educational Attainment? Evidence from the States," Journal of Policy Analysis and Management, 17, pp. 595-620.
- Soles, Jim, 2001. Admission of Transfer Students in British Columbia Post-Secondary Institutions: Policies, Practices, and Capacity. Vancouver, B.C. Council on Admissions and Transfer.
- Winston, Gordon C., 2004. "Differentiation Among US Colleges and Universities," Review of Industrial Organization, 24, pp. 331-354.



